By Maureen Brown Yoder

S'Cool Tools

5 Great Tools

to Perk Up Your Classroom and Engage Your Students

If you're a tech geek (and we know that you are), you are probably looking for the latest, greatest tools out there to engage your students. It is almost winter, after all, and the perfect time to jump-start your lessons and energize your students. Whether you're a kindergarten teacher trying to find a new way to help your students learn about shapes and patterns or a high school science teacher hoping to bring ecology alive, I have a tool that could be just right for you.

These are not merely toys. These are learning tools that I selected only after I could answer a definitive "yes" to these three important questions:

1. Does this tool have the potential to enhance teaching in some powerful way?
2. Is this tool easy to learn and well supported?
3. Is this an innovative new tool or a substantial improvement on an earlier version?

Based on this criteria, the following five tools have the potential to transform your lessons.

Lego Education's WeDo Robotics Construction Set

As a former elementary school teacher, I believe young learners can benefit from being introduced to high school subjects in an age-appropriate way. A spiraling curriculum provides young students with experiences that prepare them to better understand more complex theories later on. Conversely, high school students can learn from exploring manipulatives borrowed from kindergarten.

Lego Education collaborated with MIT's Lifelong Kindergarten group to create WeDo. Designed for kids ages 7–11, WeDo includes more than 160 Lego elements, a motor, a tilt sensor, a motion sensor, icon-based software, activities with instructions for 12 models, and teacher notes with curriculum objectives, discussion questions, and suggestions for activity extensions.

One sample project involves an alligator whose mouth snaps shut when anything comes close, employing the motion sensor. Another is an airplane that plays sounds as you move it, using the tilt sensor. Students use the drag-and-drop WeDo Robotics software created by National Instruments as well as the Media Lab's free Scratch programming system to create their own on-screen animations with WeDo constructions, integrating virtual and physical worlds. Students can even share their stories with children in other countries.

LEGO EDUCATION COMMUNITY:
http://community.legoeducation.com/blogs

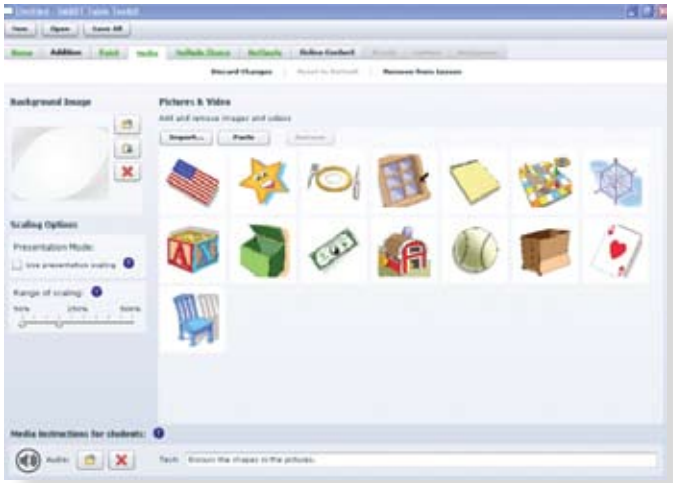
COST: LEGO Education WeDo
Robotics Construction Set, $129.95
WeDo Robotics Software, $39.95
WeDo Robotics Activity Pack, $129.95

MORE INFO:
Lego's WeDo: An Innovative Robotic Kit for Children, MIT Media Lab
www.media.mit.edu/sponsorship/getting-value/collaborations/wedo

Smart Table

Smart Technology's Smart Table is much more than a whiteboard. It is a multitouch, multiuser, interactive learning center with customizable applications. The Smart Table Toolkit includes ready-made lessons that allow you to substitute your own images and content.

The multitouch technology allows up to eight children to work together. Some applications require the sophisticated response system. Other activities may not require a Smart Table but are enhanced by it. For example, though traditional plastic tangram pieces can be manipulated easily, moving the pieces electronically on the Smart Table is a phenomenon that fascinates and motivates children.

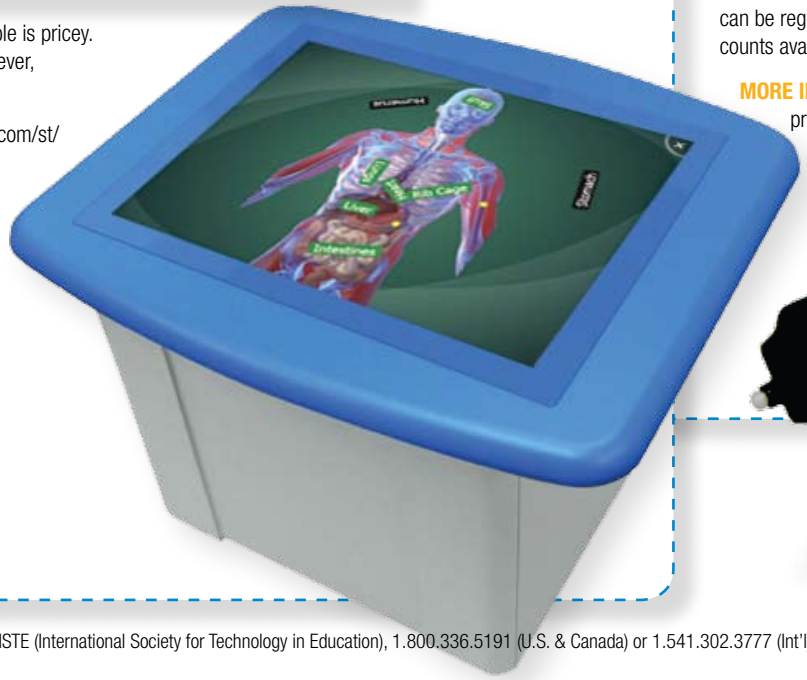


The Smart Table Educator Resources Page has downloadable activity packs to help teachers create their own lessons.

COST: At $7,999, the Smart Table is pricey. As with most technologies, however, the price is sure to come down.

MORE INFO: www2.smarttech.com/st/en-US/Products/SMART+Table

WATCH A VIDEO: www.teachertube.com/viewVideo.php?video_id=60804&title=SMART_ITable_Touch_Learn_Together_



AVer Pen

Cave dwellers carved pictures on the walls with a sharpened stone. To increase portability, clay tablets were developed around 8500 BC so writings could be transported. Over the years, inks, wood-fiber paper, quill pens, and the printing press made communication easier. But even in the 20th century a device such as the AVer pen and AVerPlus software would have been considered science fiction.

This pen is like an interactive whiteboard, but without the whiteboard, the installation, calibration, and alignments required. The image can be projected on anything in a room, and pens can write on almost any surface.

The AVerPlus software includes interactive tools, image capture, video recording capabilities, and a variety of activities. Each pen has a built-in answer selection keypad that acts as a group response system that displays poll results as graphs and tables. The pens use radio frequency and can operate within a 100-foot radius. A teacher's pen can interact with up to six student pens simultaneously.

COST: PPENSTAPK AVerPen Starter Pack (1 teacher + 4 student pens) $799.99. Up to 60 student pens can be registered to a single teacher pen. Bulk discounts available.

MORE INFO: www.avermedia-usa.com/presentation/product_averpen.asp

New Multiuser Virtual Environments (MUVEs)

The growth of Teen Second Life classroom activities and Second Life professional development opportunities is astounding. If you wonder what kids can learn from a MUVE, check out what Peggy Sheehy has done using Teen Second Life at Ramapo Middle School in Suffern, New York. Instead of presenting students with a fully designed world, Sheehy asks students to be part of the design team. Students come up with solutions that instructional designers may not consider. In a recent challenge to build a solar system in Teen Second Life, students experimented with rotation and orbit scripts, shared myths about their planets, and taught each other new skills.

Classroom projects in virtual worlds help teachers reach NETS and standards-based curriculum goals. Ramapo Islands has inspired other teachers to incorporate virtual world projects in their classrooms, to the delight of their students.

RAMAPO ISLANDS BLOG: http://ramapoislands.edublogs.org

COST: Teen Grid real estate and some building materials must be purchased. Membership and participation are free.

If you are interested in Teen Second Life, here are a couple other MUVEs that just might move you:

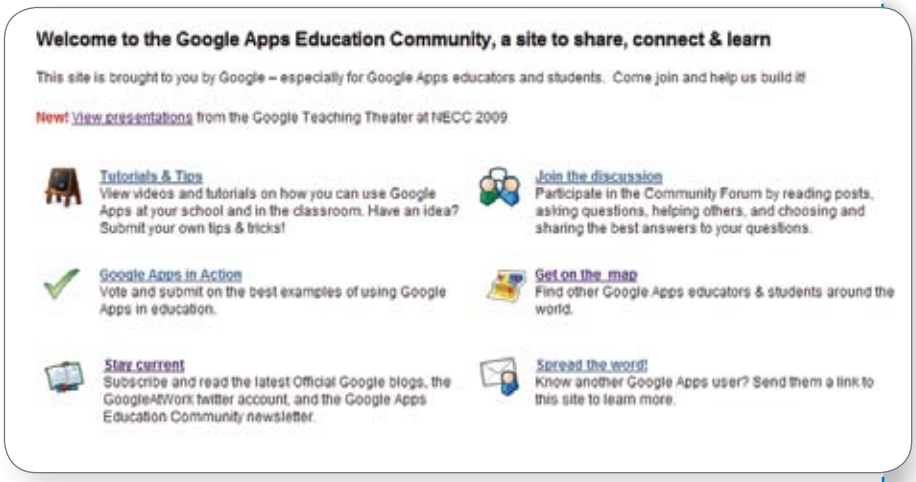
Whyville (www.whyville.net). Designed for younger children, Whyville is a virtual world where boys and girls from all over the real world come to chat, play, learn, and have fun together. Kids design their faces, earn clams by playing games, hang out at the beach, and go to town events at the Greek Theater. They can start their own businesses, buy cars, and write for the town newspaper.

Skoolaborate (www.skoolaborate.com). This global initiative uses blogs, online learning, wikis, and virtual worlds to transform learning. The idea is to integrate curriculum and digital technologies into collaborative global actions. The Skoolaborate virtual learning space is secure and accessible only by invitation. Skoolaborate has 22 schools and organizations from Australia, New Zealand, Taiwan, Japan, Singapore, Chile, Portugal, the United Kingdom, and the United States.

Quest Atlantis (http://atlantis.crlt.indiana.edu). This is an international learning and teaching project that uses a 3D multiuser environment to immerse children ages 9–16 in educational tasks. QA combines strategies used in the commercial gaming environment with lessons from educational research on learning and motivation. Participation in this game is designed to enhance the lives of children as it helps them grow into knowledgable, responsible, and empathetic adults.

EcoMUVE (www.ecomuve.org/index.html). The EcoMUVE is an ecosystems science curriculum for middle school that includes two science curricular modules that make up ten 50-minute lessons. These include two MUVEs for teaching various aspects of ecosystems science, with full technical documentation, ancillary materials, and a teacher guide and training. These MUVE modules complement and extend the current curriculum of the Understandings of Consequence Project (http://pzweb.harvard.edu/ucp).

World of Warcraft in School (www.wowinschool.pbworks.com). This program uses the game World of Warcraft as a focal point for exploring writing, literacy, mathematics, digital citizenship, online safety, and 21st-century skills.



Google Apps Education Community

Google is reaching out to educators to provide tools for Internet searching, collaboration, and classroom activities at its new site designed specifically for teachers. The site offers video tutorials on using Google Apps, lets users vote on their favorite apps for education, provides a forum where educators can share ideas and get advice, and contains a list of educators from around the world who are using Google Apps. The site was unveiled at NECC 2009 and is growing daily.

The site has links to dozens of lesson plans posted by teachers who use Google Apps in the classroom. You can search by application, subject area, and grade level to pinpoint a particular area.

Also, Google is offering its Message Security free to current and new K–12 Google Apps Education accounts. Administrators can filter messages based on who they are from, where they are going, or the content they contain.

GOOGLE APPS EDUCATION COMMUNITY: http://edu.googleapps.com

COST: Free

MORE INFO: http://edu.googleapps.com/tutorials-and-tips/necc-presentations

Maureen Brown Yoder, PhD, is the program director of the Technology in Education online master's program at Lesley University in Cambridge, Massachusetts. She teaches Emerging Technologies, a course that incorporates innovative technologies in ways that promote imaginative thought and original creations. She is also a former elementary and middle school teacher.